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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/065,757	05/24/1993	SHUNPEI YAMAZAKI	0756875	3615

31780 7590 05/05/2004

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EXAMINER	
KOSLOW, CAROL M	

ART UNIT	PAPER NUMBER
1755	

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	08/065,757	YAMAZAKI, SHUNPEI	
	Examiner	Art Unit	
	C. Melissa Koslow	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6,8,10-12,14,18-20 and 22-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *6,8,10,11,18-20 and 22* is/are allowed.

6)☒ Claim(s) *12,14 and 23-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/5/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

This action is in response to applicant's amendment of 5 April 2004. The rejections over the canceled claims are withdrawn. Applicant's arguments with respect to the remaining rejections have been fully considered but they are not persuasive.

The articles and the U.S. Application cited in information disclosure statement filed 5 April 2004 fail to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

The disclosure is objected to because of the following informalities: Figure 1 is missing.

Appropriate correction is required.

Claim 14 is objected to because of the following informalities: "A_{1-p}" appears twice in the formula. Appropriate correction is required.

Claims 23, 27 and 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The phrase "along which a superconducting carrier flows" does not appear in the original specification and thus is new matter. It is noted page 5 teaches superconductivity results from the flow of electrons in the layer-like structure formed by the four oxygen atoms surrounding each central copper atom. This teaching does not support the claimed generic teaching. Also there is no teaching in the specification that the critical temperature is no lower than 70°K.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 12 and 23-38 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by US Patent 6,638,894; U.S. patent 6,635,603: or U.S. Patent 6,630,425.

The table, in all three patents, teaches superconducting ceramics whose formulas fall within the formula of claim 12.

All three of these patents teach superconducting copper oxide ceramics having a perovskite structure and comprising atoms of copper oxygen, a rare earth element, preferably yttrium and an alkaline earth element, preferably barium. Figure 1, in all three patents, graphically demonstrates the structure of the taught superconductor. This figure shows the taught superconductors all have the same structure as that claimed. The examples in the table all teach superconducting copper oxides having the claimed structure and comprising atoms of copper oxygen, yttrium and barium which have a critical temperature being no lower than 70K. Thus the references teach superconducting copper oxide ceramics which are identical to those claimed. The only claimed aspect not taught by the references are that a superconducting carrier flows along the copper oxide layers, but one of ordinary skill in the art would expect the superconducting carrier to flow along the taught copper oxide layers since the taught superconducting ceramics are identical to those claimed.

The amendment to claim 12 does not overcome the rejection since the references teach compositions having the formulas $LaBaCaCu_3O_{9-\delta}$ and $Yba_{1.5}Sr_{0.5}Cu_3O_{9-\delta}$, where δ is 1.5-2.4. These compositions fall within the claimed formula. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable

invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,635,603 or U.S. Patent ,638,894.

Both references teach compositions having the formula $M_2M'Cu_3O_{9-\delta}$, where δ is 1.5-2.4, M can be a mixture of Ba and either Sr or Ca and M' can be a mixture of Y, La, Eu, Lu and Sc. This formula suggests that of claim 14. Thus the references suggest the claimed ceramic.

The fact applicant has made the claimed independent does not overcome the rejection. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 23-25, 27-29 and 31-38 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-3, 8-10 and 15-22 of copending Application No. 07/859,254. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 26 and 30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4 and 11 of copending Application No. 07/859254. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed superconductor of Application No. 07/859254 is identical to that claimed in claims 26 and 30, except it includes niobium as one of the rare earth metals.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached at (571) 272-1362.

The fax number for all official communications is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk
May 3, 2004

C. Melissa Koslow
Primary Examiner
Tech. Center 1700